

REMARKS

This is a preliminary amendment for a divisional application based on Ser. No. 10/137,930 (parent application).

I. Restriction Requirement in the Parent Application

Originally presented claims 1 to 15 in the parent application were subjected to a restriction requirement. The optical element and read-and-write device of claims 1 to 6 are related to the optical glass of claims 7 to 15 as combination and sub-combination. In the parent application claims 1 to 6 were canceled so that prosecution would continue with claims 7 to 15 for a lanthanum borate glass. Subsequently amended claims for a lanthanum borate glass were allowed in the parent application.

This divisional application has been filed to prosecute claims for an optical element and for a read-and-write device including the optical element. These latter claimed devices are especially useful in CD players and CD burners.

II. Claim Changes

Claims 7 to 15 for the optical glass have been canceled so that prosecution can continue with claims 1 to 3 and 5 and 6. Claim 4 was also canceled because it was drafted to claim an "optical glass" instead of an "optical element"; otherwise it is the same as claim 1. Optical glass claims were allowed

in the parent application.

Dependent claims 16 to 27 have been added. They claim preferred embodiments of the optical elements and read-and-write devices claimed in claims 1 to 3 and 5 and 6.

Claims 1 to 3 claim an optical element with especially good properties for use in an optical read-and-write device based on the use of monochromatic light beams. The important properties of an optical element (e.g. lens) used in these devices include the density, the index of refraction and the dispersion. The reasons for the importance of these properties in optical read-and-write devices are explained on pages 2 to 5 of applicants' specification. They include e.g. low density so that a read-write head can be constructed with a minimum of weight and hence inertia during the read-write operation (page 5, first full paragraph, of applicants' specification). The dispersion influences the maximum amount of information that can be recorded in a given surface area.

Claims 1 to 3 claim an optical element having certain property value ranges for density, dispersion and index of refraction. They do not include glass composition information. Applicants assert that an optical element, such as a lens, with the preferred property ranges of claim 1, namely index of refraction greater than or equal to 1.70, Abbé number greater than or equal to 35 and density less than or equal to 4.5 g/cm^3 , is both novel and unobvious. Further the applicants' specification teaches how to make such optical elements because lanthanum borate glass compositions that will permit such an optical element to be made are disclosed.

Each and every element or limitation of a claimed composition should be considered during examination including property value ranges for properties of the composition (M.P.E.P. 2131 and *In re Bond*, 15 U.S.P.Q 2nd 1566, Fed. Cir). Also a claimed composition cannot be separated from its properties. In this case claims 1 to 3 and 5 to 6 do not include oxide concentration ranges, only properties value limits. However these property values limits should be considered because they distinguish the claimed invention from the prior art.

On the other hand, dependent claims 16 to 27 claim preferred embodiments of the optical element of claim 1 and the read-and-write device of claim 5. These preferred embodiments are characterized by several glass compositions disclosed in applicants' specification that will allow the optical element or device to be made and to have the claimed properties of claims 1 and 5.

Also dependent claims 16 and 23 are new and include minimal composition information for the optical glass. This composition information is a recitation of all required oxide ingredients that are necessarily present *in all four different classes of glass* disclosed in the specification.

In addition claims 16 and 22 include information on the spectral transmission purity degree and partial dispersion. The values for the ranges of these properties are obtained from Table II. Page 27 explains the importance of these latter properties to some extent.

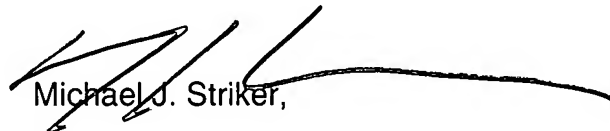
Dependent claims 17 to 20 and 24 to 27 are based on the preferred glass compositions disclosed on pages 16 to 22 of the applicants' specification, but are

drafted with "consisting of" wording similar to the allowed claims filed in the supplemental amendment dated January 5, 2004 in the parent application. This reduces the number of dependent claims and eliminates multiple claim dependencies. They claim particularly preferred glass compositions that can be used to make the claimed optical element and ready-and-write device with it in accordance with the disclosures in applicants' specification. However the intent here is to distinguish the optical element and read-and-write device from the prior art on the basis of the property ranges recited in claims 1 to 3 and 5 and 6.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,


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